ABSTRACT

According to a re-transmission control method according to the present invention, when a transmitter-side communication device receives a NAK from a receiver-side communication device, an encoder (101) generates a parity-check matrix for a re-transmission so as to include, as a part of the parity-check matrix for the re-transmission, a check matrix (configured by a check symbol generator matrix P and a unit matrix) in an irreducible standard form obtained by transforming a parity-check matrix for an initial transmission, transforms the parity-check matrix for the re-transmission into a check matrix (configured by a check symbol generator matrix (P+P') and the unit matrix) in the irreducible standard form, generates a generator matrix in the irreducible standard form for the re-transmission, which matrix includes the check symbol generator matrix (P+P'), and generates an additional parity (=P'× m) using the generator matrix P' and a message m having a fixed length. Thereafter, a modulator (102) performs a predetermined digital modulation on the additional parity and transmits the modulated additional parity.